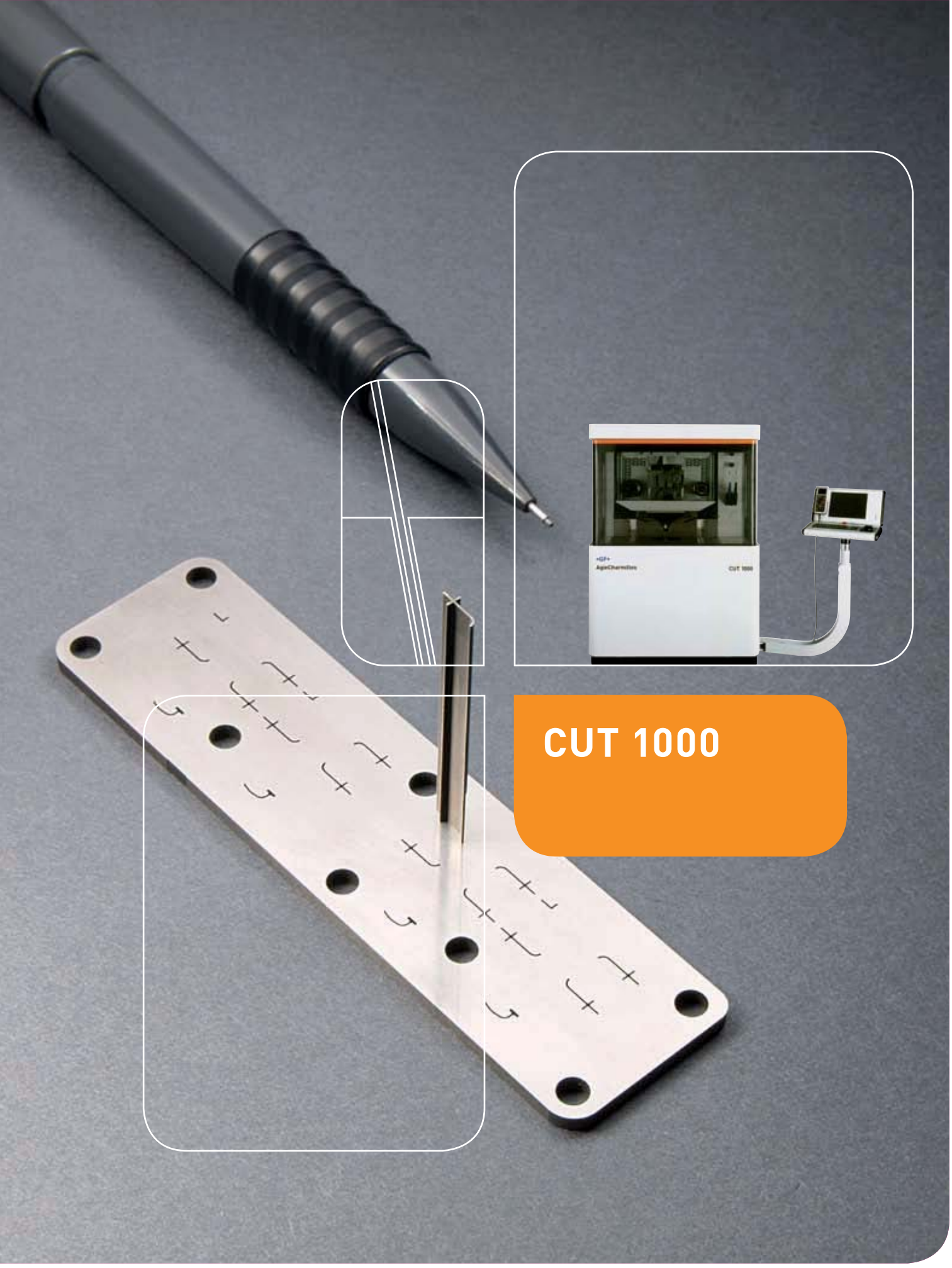


CUT 1000

+GF+ AgieCharmilles

Applications Range

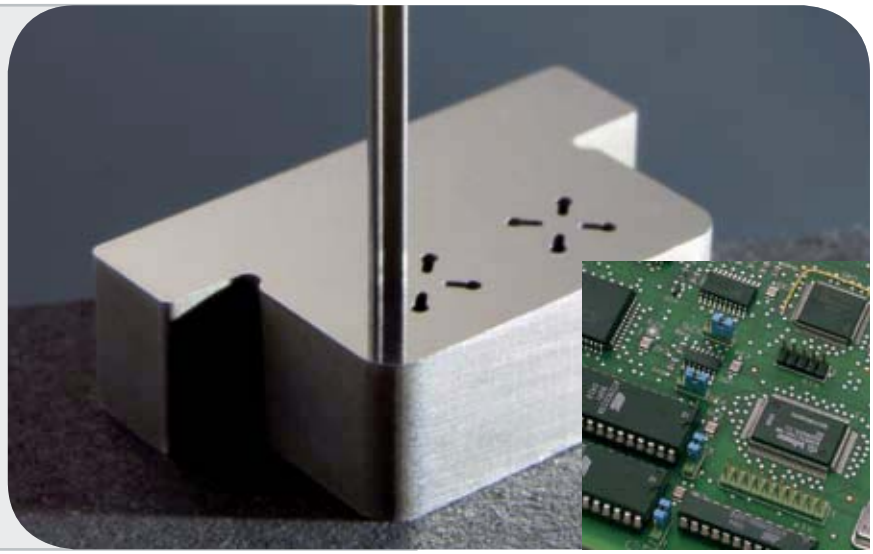
For ultra-accurate microapplications

Microelectronics
Die – punch clearance 1µm

Finest thickness
of punch size 0.2 mm
for a surface finish Ra 0.08 µm

Inner radii: 0.1 mm

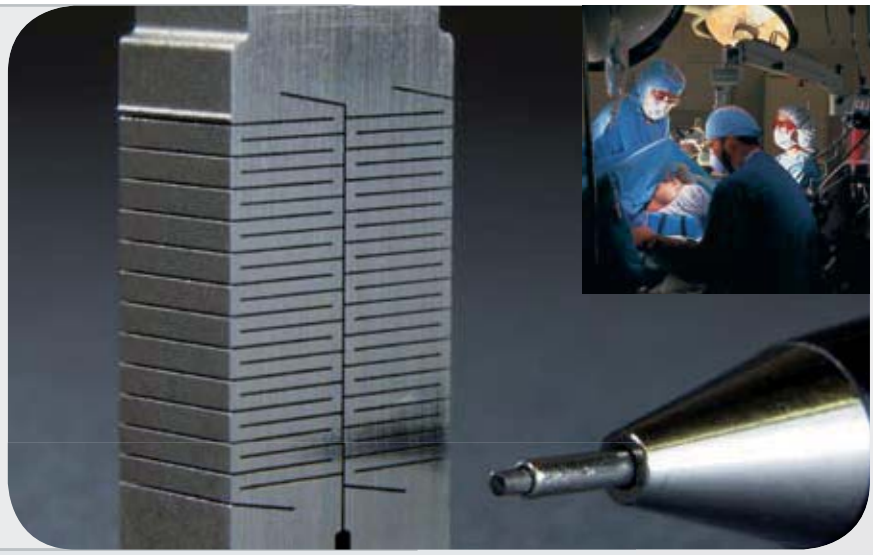
Wire used:
CCA Microcut dia. 0.05 mm

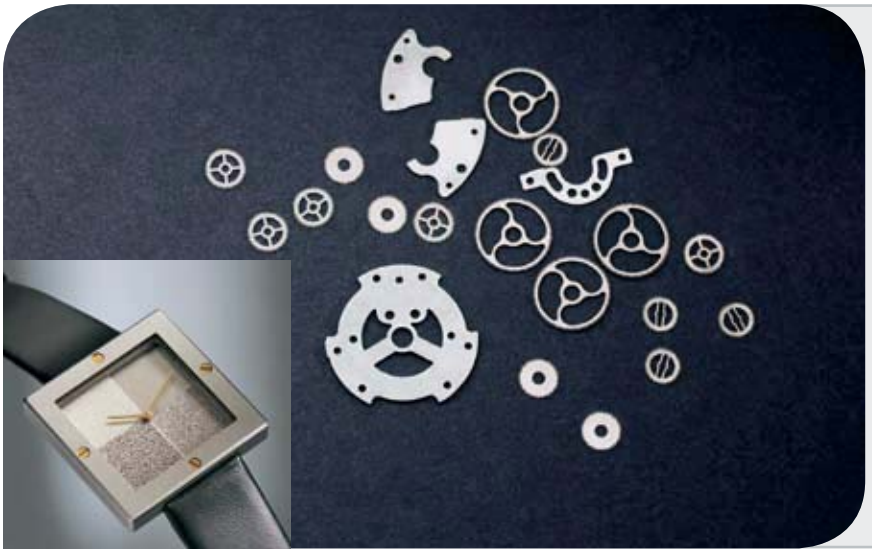


Medical technology
Clamping system
for lamellar emitter

The slits are only 60 µm in size
for a general tolerance of 5 µm

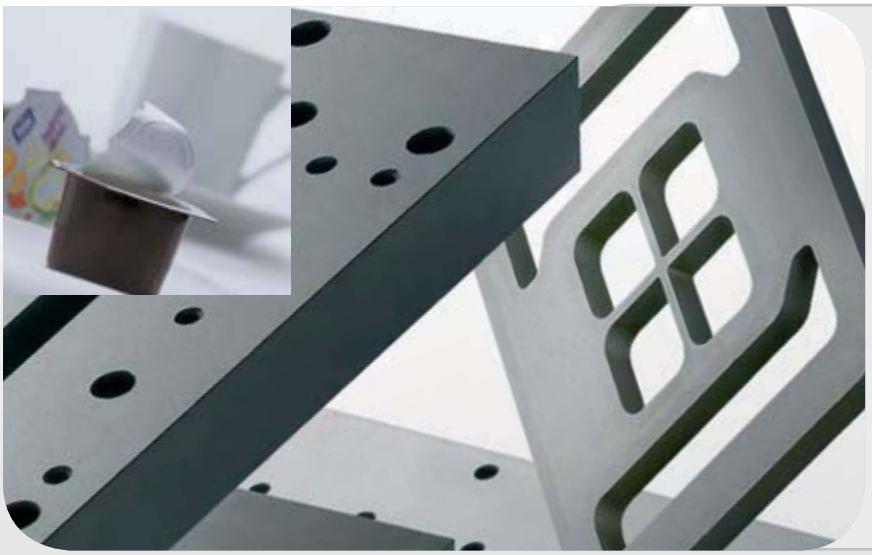
Wire diameter used: 0.03 mm





Watch industry
High accuracy in the inner radii

Exactness in machining
the small details
with provision for machining
inner radii down to 0.02 mm



Food industry
Positioning accuracy

Mass production requires
high precision cutting tools,
above all for the manufacture
of articles just a few hundreds
of mm in thickness

Thickness of the sheet
to be blanked 0.04 mm
Required accuracy: < 2 µm

CUT 1000

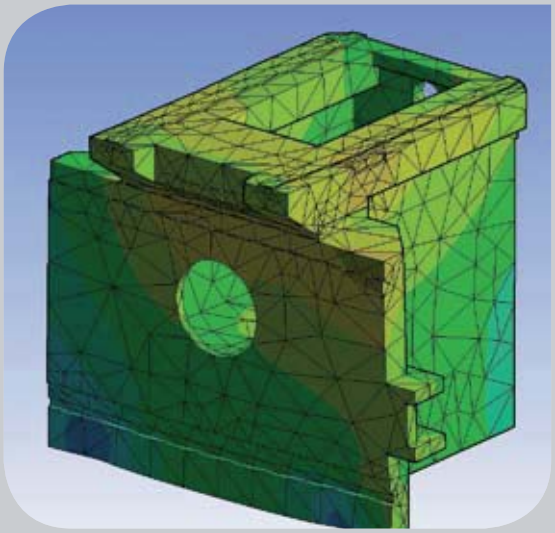
The most accurate EDM wire-cutting machine in the world
opens up a world of applications never before accessible.

CUT 1000
At a glance

Designe for ultraprecision

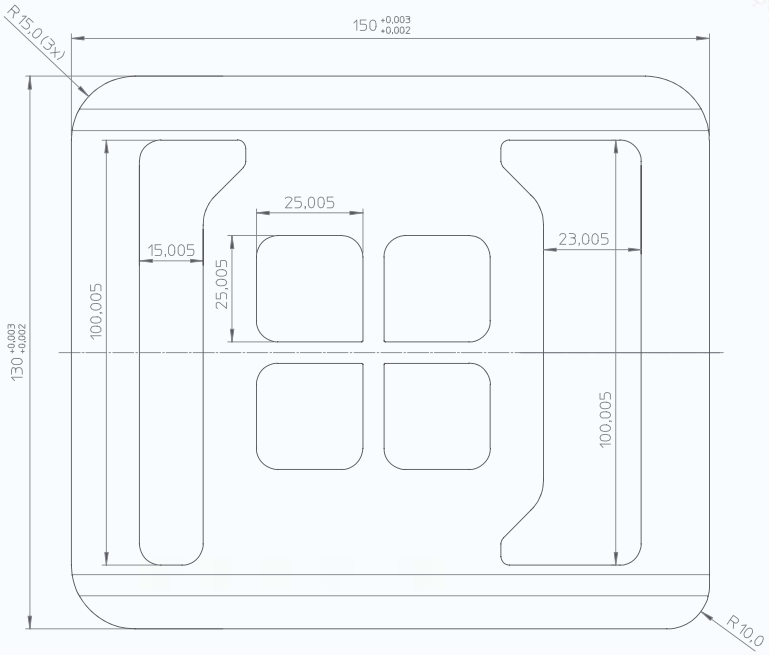
Patented monobloc

With a modulus of rigidity that is twice as high as normal designs, a particularly accurate rectangularity of the two main axes X and Y is achieved. The slide blocks run in roller guide rails which are arranged directly on the monobloc. The guideways of X and Y axis are separate so that mutual interference is impossible and no tripping errors occur in the end sections of the travel paths.



Exclusive machining project for the Micro application range

Requests for increasingly higher accuracy in terms of positioning and shape of the machining operations mean ever tighter machining tolerances as well as a very high mechanical stability.
These new frontiers have led to a detailed study of the framework of the CUT 1000 machine. This has enabled introduction of more modern and precise measuring systems in order to ensure a perfectly uniform accuracy over the entire work zone of ± 1 µm.



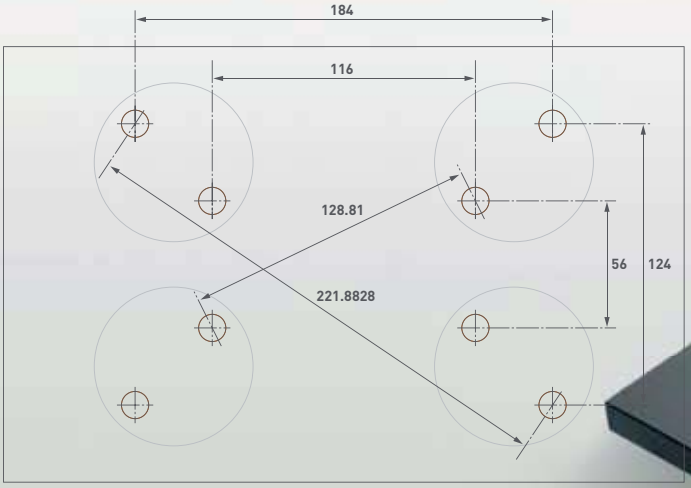
Perfact positioning accuracy

Material: Hard metal
Height: 20 mm
Wire: CCA 0.25 mm
Surface finish: Ra 0.08 um
Positionning accuracy: 1 µm
Form tollerance: Tf 2 um

Quality controls

Each CUT 1000 machine is tested via a machining operation with a test pallet; 8 reference holes 5.5 mm in diameter are eroded.
The following characteristics are checked with this test:
- Shape
- Circularity
- Positioning

Which are guaranteed within a tolerance of ± 1 µm

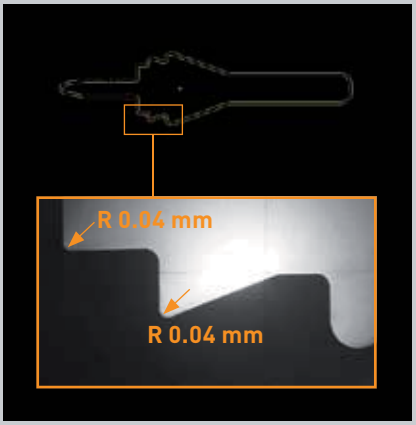


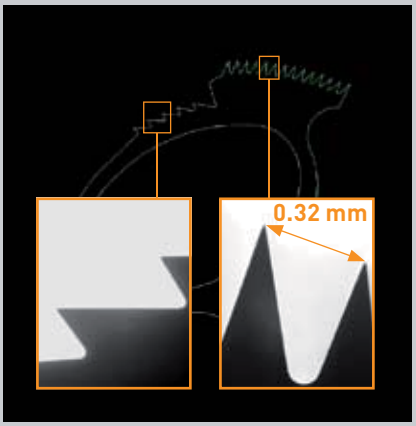
Very fine surfaces

With CUT 1000 it is possible to obtain a standard of surface finish down to 0.05 µm

Punch:
Surface finish: Ra 0.08 µm
Shape accuracy: Tf 3 µm

Great accuracy in the fine details





Finest wires

With the F-module for finest wires, the normal scope of EDM wire cutting applications is expanded into the micromachining dimension.
New possibilities are opened up for the manufacture of electronic, medical, watch and precision mechanical parts. Wires down to 0.02 mm diameter can be used with which radii of just 0.015 mm can be achieved.

Technical Data		CUT 1000
Dimensions (L x W x H)	mm in	1500 x 2000 x 1970 59 x 78.7 x 75.5
Total weight	kg lb	3200 7055
X, Y, Z axes	mm in	220 x 160 x 100 8.66 x 6.29 x 3.93
U, V axes	mm in	± 40 1.57
Taper angle/height	°/mm in	± 3/80 ± 3/3.14
Workpiece dimensions (L x W x H)	mm in	300 x 200 x 80 11.81 x 7.87 x 3.14
Max. workpiece weight	kg lb	35 77.1
Volume of dielectric	l us gal	420 111
Available wire diameter (Variant F)	mm in	0.1-0.2 (0.02-0.2) 0.004 - 0.079 (0.0008 - 0.008)
Best surface finish Ra	µm µin	0.05 2

Double wire system

With Agieduo it is possible to work with two wire spools, each with a different wire type. Thus, for example, the main cut can be carried out automatically with a 0.10 mm wire and the trim cuts with a 0.05 mm wire. One single wire guide is designed for all wire diameters from 0.2 to 0.02 mm. The complete sequence of wire operations takes place fully automatically and is monitored by patented sensors.

User friendliness

With the new design of the touch remote control, the preparatory operations for a machining operation with axis movement, measuring cycles and start of erosion are quicker and more reliable.

This user friendliness is combined with the user interface Vision 5, which allows flexible data input, adaptable to the surrounding environment.

259.804.752

At a glance

Achieve more

We commit to a promise. That promise is "Achieve more." It's a commitment to create the right conditions for our customers to obtain competitive results. When our customers win, we win.

GF AgieCharmilles

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM and Automation solutions. A comprehensive package of Customer Services completes our proposition.

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Achieve more...